

Remarks

Claims 1-27 and 29-38 are pending in this application. Applicants have amended claims 1, 2, 14, and 27 to clarify the claimed invention. Claims 8-10, 15-26 and 29-38 are withdrawn from consideration by the Examiner as directed to non-elected inventions. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 5,568,593 to Demarest. The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Demarest. The Examiner rejected claims 5-7 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Demarest in view of U.S. patent 5,914,880 to Yasojima. The Examiner rejected claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Demarest in view of Yasojima and further in view of U.S. patent 4,580,207 to Arai.

Demarest does not disclose the invention recited in independent claims 1 and 27 since, among other things, Demarest does not disclose providing with a sensor member data on a first position to a control member configured to control a plurality of machines, sending a message from a master process of the control member including one or more first positions to all of the machines controlled by the control member, sending a message from the control member to all of the machines with an indicator member specifying which of the one or more first positions shall be used, and receiving with the control member from one of the machines a message that the one of first positions has been used. The Examiner asserts that col. 8, lines 13-20 discloses that a first position among a plurality of first positions has been used. However, this passage only

discloses a "safe to place" message that does not indicate that a first position has been used. Rather, the "safe to place" message indicates that a needle that has been picked may be placed in a conveyor boat. This does not indicate that the needle has been placed or that one of a plurality of first positions has been used or that a message has been sent that one of the first positions has been used.

Additionally, Demarest does not disclose sending a message from a control member to all machines controlled by the controller. The Examiner argues in paragraph 3 of the office action that Demarest discloses this feature. However, Applicants respectfully disagree with the Examiner. In particular, Demarest discloses sending a message to either one of the robot grippers 55a and 55b, with two robot controllers, not both. This is disclosed by Demarest for example at col. 4, lines 24-34, and, in particular, lines 31-33, which states, "The control system of the invention instructs a robot gripper, for e.g. gripper 55a of the robot assembly 501, to grab the tracked needle". In other words, only one robot gripper is instructed.

Further evidence of this difference between the claimed invention and Demarest is provided by Fig. 7 and the passage at col. 7, line 7, through col. 8, line 31. Along these lines, Fig. 7 is a diagram showing control and data flow in the system disclosed by Demarest. Col. 7, lines 51-59, discloses that there is a robot control task with each Adept® controller for each robot assembly 50a and 50b although only one controller is indicated in Fig 7. In other words, there are two robot control tasks for the two robot assemblies 50a and 50b.

Furthermore, at col. 7, lines 54-55, Demarest discloses one FIFO buffer for

communication of needle locations from the Vision Control Task 160. As can be seen from col. 11, lines 19-20, there is only one vision control task. Additionally, col. 7, line 64, through col. 8, line 1, describes that the respective robot controller continuously polls the input FIFO to obtain positional data for needle locations.

Demarest describes at col. 8, lines 4- 8, how, "When an acceptable (recognizable) needle position is entered into the FIFO buffer 155, the robot controller will remove the needle position from the buffer and direct the robot gripper arm 55a,(55b) to move to that location on the conveyor belt as indicated at step 104." In other words, according to Demarest, a robot controller, which is coupled to a single robot gripper, reads a location in the FIFO buffer, removes the entry from the buffer and effects movement of the associated gripper arm. By removing the entry from the buffer, it is no longer readable by any other robot controllers. In other words, the data entry with the location data has been received by only one robot controller.

Specifically, Demarest does not describe that both robot controllers read the FIFO buffer and move both robot gripper arms to the indicated location. This would be inconsistent with the use of the FIFO buffer and also a waste of resources for no benefit. Instead, Demarest discloses how one robot controller reads the FIFO buffer and moves the coupled robot gripper. This allows the other robot controller to pick the next location from the FIFO buffer, whereby the robot grippers work in parallel.

This is further evidenced by Demarest to indicate the use of one of two alternatives. For example, col. 8, line 8 discloses "the robot gripper arm 55a,(55b)". Additionally, col. 8, line 10

describes "the robot gripper 55a,(55b)". Furthermore, col. 8, lines 28-29 describe "the Adept® robot 50a or 50b will attempt to place a needle onto a boat".

In other words, since Demarest utilizes a FIFO buffer to send location of needle positions to the robots, it is impossible that Demarest discloses "sending a message from a control member to all machines controlled by the controller". Sending location data to a FIFO buffer accessible for all robot controllers does not imply sending location data to all robot controllers since only one machine can receive each location data item in the FIFO buffer.

However, according to the claimed invention, by sending the message with positions to all of the machines, a redundancy of information is achieved. Each of the machines keeps a list of positions, allowing another machine to take over if one machine experiences stoppage. This is a significant advantage of the claimed invention that results in greater reliability for pick and place operations. On the other hand,, Demarest is not so concerned with having to pick each and every needle. This is supported by the disclosure of Demarest at, for example, col. 4, lines 35-43, which describes how needles can be positioned such that they can not be picked up by a robot gripper, whereby recovery procedure is disclosed.

In view of the above, Demarest does not disclose all elements of the invention recited in claims 1-3 and 27. Since Demarest does not disclose all elements of the invention recited in claims 1-3 and 27, the invention recited in claims 1-3 and 27, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. § 102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v.*

Genentech, Inc., 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

Demarest does not suggest the invention recited in claim 4 since, among other things, as noted above, Demarest does not suggest sending a message from a control member to all machines controlled by the controller or receiving with the control member from one of a plurality of machines a message that one of a plurality of first positions has been used. Accordingly, Demarest does not suggest the invention recited in claim 4.

The combination of Demarest and Yasojima does not suggest the invention recited in claims 5-7 and 28 since, among other things, the combination of Demarest and Yasojima does not suggest sending a message from a control member to all machines controlled by the controller or receiving with the control member from one of the machines a message that the one of first positions has been used. Yasojima does not suggest a plurality of first positions or sending all first positions to a plurality of machines controlled by a controller. Therefore, the combination of Demarest and Yasojima does not suggest the invention recited in claims 5-7 and 28.

The combination of Demarest, Yasojima and Arai does not suggest the invention recited in claims 11-14 since, among other things, the combination does not suggest sending a message from a control member to all machines controlled by the controller or receiving with the control member from one of the machines a message that the one of first positions has been used. Arai does not suggest a plurality of first positions or sending all first positions to a plurality of machines controlled by a controller. Therefore, the combination of Demarest, Yasojima and Arai does not suggest the invention recited in claims 11-14.

In view of the above, the references relied upon in the office action, whether considered alone or in combination, do not disclose or suggest patentable features of the claimed invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not anticipate the claimed invention or make the claimed invention obvious. Accordingly, Applicants submit that the claimed invention is patentable over the cited references and respectfully request withdrawal of the rejections based on the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this application and issuance of the notice of allowance.

If an interview would advance the prosecution of this application, Applicants respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit

overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: February 1, 2010

/Eric J. Franklin/
Eric J. Franklin, Reg. No. 37,134
Attorney for Applicants
Venable LLP
575 Seventh Street, NW
Washington, DC 20004
Telephone: 202-344-4936
Facsimile: 202-344-8300